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March 27, 2001

BY ELECTRONIC FILING

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
The Portals
445 Twelfth Street, S.W.
Washington, DC 20554

Re: ***WT Docket No. 00-230 (Secondary Spectrum Markets Proceeding)***

Dear Ms. Salas:

Attached you will find a copy of Comments filed by New Skies Satellites N.V. in the Commission's proceeding (IB Docket No. 00-248) to streamline Part 25 of its rules governing the licensing of, and spectrum usage by, satellite network earth stations and space stations. Because those Comments respond in part to comments filed in this proceeding by the Satellite Industry Association, New Skies is submitting them for the record in this proceeding as well.

In accordance with Commission rules, this letter is being filed electronically in the above-captioned docket.

Respectfully submitted,

/s/

William M. Wiltshire

Attachment

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
2000 BIENNIAL REGULATORY REVIEW -- STREAMLINING AND OTHER REVISIONS OF PART 25 OF THE COMMISSION'S RULES GOVERNING THE LICENSING OF, AND SPECTRUM USAGE BY, SATELLITE NETWORK EARTH STATIONS AND SPACE STATIONS	)	IB Docket No. 00-248

COMMENTS OF NEW SKIES SATELLITES N.V.

New Skies Satellites N.V. ("New Skies") hereby responds to the Commission's request for comment on potential improvements to the rules governing satellite earth and space stations.[1] These comments focus on two areas of ambiguity in the existing rules that New Skies encountered in a recent proceeding. First, rather than rely upon indirect regulation of the power levels of downlink signals for satellites operating in the C-band, the Commission should explore possible mechanisms for an explicit limit similar to – but more flexible than – the one it has adopted for Ku-band satellites. Second, the Commission should more clearly delineate in its rules the conditions under which receive-only earth stations that are not large enough to qualify for routine processing may communicate with non-U.S. licensed satellites on the Permitted Space Station List. By clarifying these aspects of its rules, the Commission will give satellite operators and users greater regulatory certainty and thus enable them to better design and implement their networks.

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[1] *2000 Biennial Regulatory Review – Streamlining and other Revisions of Part 25 of the Commission's Rules Governing the Licensing of, and Spectrum Usage by Satellite Network Earth Stations and Space Stations*, FCC 00-435 (rel. Dec. 14, 2000) ("*NPRM*").

A. C-Band Downlink Power Limitation.

As noted in the *NPRM*, the Commission has adopted a number of technical rules designed to maximize the number of satellites in-orbit and the efficient use of orbital/spectrum resources by creating an environment where satellites separated by at least two degrees of longitude can provide co-frequency, co-coverage services.[2] Since its adoption in 1983, this two-degree spacing policy has been the cornerstone of the Commission's satellite licensing policy in the "domestic" arc.[3] Among the rules adopted to implement this policy for operations in the C-band are (1) limits on space station power flux density levels;[4] and (2) limits on the power at which earth stations transmit and the size of the earth station antenna.[5] Under existing Commission rules, however, there is no explicit limit on the downlink power that a C-band satellite operator may use to communicate with a routinely licensed U.S. earth station.

Interestingly, when the Commission first adopted its two-degree spacing rules, the record evidence suggested that in order to achieve such minimal orbital spacing there could not be significant variations from nominal values of satellite equivalent isotropically radiated power ("EIRP").[6] Specifically, a technical study submitted by RCA Americom showed that adjacent satellite interference objectives could only be met with inhomogeneities on the order of 2 dB.[7] Despite this evidence, the Commission determined that a rigid limit was not necessary because "inhomogeneities can be maintained within reasonable limits with advance planning and careful

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2 *NPRM* at ¶ 7.

3 *See, e.g., Telesat Canada*, 15 FCC Rcd. 3649, 3654 (Int'l Bur. 1999).

4 *See* 47 C.F.R. § 25.208(a).

5 *See id.* at §§ 25.211(d), 25.212(d).

6 *See Licensing of Space Stations in the Domestic Fixed-Satellite Service and Related Revisions*, 48 Fed. Reg. 40233 at ¶ 33 (Sept. 6, 1983).

coordination" and "a baseline set of parameters could be established within which design and operational parameters are to be maintained."[8]

At the time the Commission adopted its two-degree spacing rules in 1983, the universe of space stations serving the United States was essentially limited to those licensed by the Commission. Accordingly, the Commission could determine at the space station licensing stage whether a particular proposal by one applicant would be compatible with other U.S. licensed operators in the orbital arc. But with the market access commitments made under the WTO Agreement on Basic Telecommunications in 1997, the number and variety of satellites seeking access to the U.S. market has increased dramatically. As a result, the coordination environment is much more complicated now than it was in 1983. This is particularly true with respect to the central portion of the "domestic" arc where, because the United States has agreed with the administrations of Canada and Mexico not to license C-band satellites, the Commission historically has had neither the incentive nor the ability to dictate operating parameters of satellites that may now seek full access to the U.S. market.[9]

New Skies believes that the Commission would facilitate co-coverage, co-frequency services and maximize orbital efficiency – the underlying goals of the two-degree spacing policy – by adopting some principle for limiting the downlink power of C-band satellites. The Commission has already adopted such an approach to Ku-band satellite services, for which it has

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7 *Id.* at ¶ 35.

8 *Id.* at ¶ 36.

9 *See Trilateral Arrangement Regarding Use of the Geostationary Orbit Reached by Canada, Mexico, and the United States*, Public Notice (rel. Sept. 2, 1988)(agreeing not to license C-band satellites in the arc between 105° W.L. and 121° W.L.).

established both limits on the power at which earth stations transmit to the satellite ***as well as*** limits on EIRP density for downlink transmissions from the satellite.[10]

But New Skies does not believe that such an absolute limit would be necessary or appropriate in the C-band context. Rather, the Commission should adopt a rule that will give the satellite industry the flexibility necessary for an orderly migration toward steadily increasing downlink power levels as satellite technology develops and operators replace existing satellites. For example, the Commission and the satellite industry could develop data such as that presented by RCA Americom in 1983 to determine what level of inhomogeneity is consistent with two-degree spacing given current satellite and earth station technology. The Commission could then adopt a rule that would limit the downlink EIRP of new C-band space stations to prevent a greater inhomogeneity with respect to any other C-band space station licensed to operate from an orbital location within a reasonable arc of longitude in either direction. Perhaps, consistent with the coordination thresholds adopted at WRC-2000, ±10° of the nominal orbital position of a geostationary satellite would be the appropriate area for assessment,[11] but some smaller portion of the arc might also be suitable to this purpose.

The process suggested above is but one approach, but it is indicative of the kind of rule that could prevent an anomalously high-power satellite from effectively sterilizing a portion of the arc and thereby limiting the number of slots available to provide service to U.S. customers. Such a rule would, over the course of time as satellites go out of service and are replaced, allow operators to launch new satellites operating at higher power levels. Presumably, this process would permit a gradual but ultimately unbounded increase in power to the extent desirable for

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[10] *See* 47 C.F.R. § 25.212(c) (establishing EIRP density limits for narrowband analog signals and both narrowband and wideband digital signals).

satellite services. At the same time, however, restricting this process to specified maximum increments would ensure that downlink power inhomogeneities do not develop so quickly that they effectively preclude coordination for service into the U.S. from neighboring orbital locations. New Skies encourages the Commission to take this opportunity to develop the technical data needed to adopt this kind of limitation.

B. Receive-Only Earth Stations and Permitted Space Station List Satellites.

The Commission has a long-standing policy, codified in Section 25.131(j) of the Commission's rules, under which receive-only earth stations are required to obtain licenses before communicating with non-U.S. licensed satellites. Although the Commission has abolished the requirement for licensing of receive-only earth stations using U.S.-licensed space facilities, it expressly retained this requirement for non-U.S. licensed satellites when it established market access rules in *DISCO II* because licensing such stations is necessary to provide a regulatory point of contact and to ensure that the stations' operation would facilitate competition in the United States.[12] When it created the Permitted Space Station List in the *DISCO II Reconsideration Order*, the Commission did not alter this requirement since the streamlined access rules apply only to earth stations "that are authorized to access 'ALSAT' as points of communication"[13] – a category that would not include unlicensed receive-only earth stations. However, the applicability of Section 25.131(j) when a receive-only earth station operator seeks to communicate with a non-U.S. licensed satellite on the Permitted Space Station

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11 *See* Provisional Final Acts of the World Radiocommunications Conference, Table S5-1 at APS5-2 (Istanbul 2000).

12 *See Amendment of the Commission's Regulatory Policies to Allow Non-U.S. Licensed Satellites Providing Domestic and International Service in the United States*, 12 FCC Rcd. 24094, 24180 (1997) ("*DISCO II*").

13 *Amendment of the Commission's Regulatory Policies to Allow Non-U.S. Licensed Satellites Providing Domestic and International Service in the United States*, 15 FCC Rcd. 7207, 7218 (1999).

List has not been clearly delineated in any Commission order. The Commission should take the opportunity in this proceeding to clarify the interplay of its rules in such a scenario.

New Skies notes that, in the *Secondary Markets* proceeding, the Satellite Industry Association ("SIA") has advocated the elimination Section 25.131(j), arguing that the continued licensing requirement for receive-only earth stations communicating with non-U.S. licensed satellites appears inconsistent with the rules for communications with U.S. licensed satellites and with the streamlining intent underlying creation of the Permitted Space Station List.[14] SIA's proposal merits consideration, but must be tempered to avoid unintended consequences. We can see no reason to continue to require licensing for receive-only dishes of sufficient size to qualify for routine licensing – *i.e.,* 4.5 meters in diameter for C-band operations – once the Commission has made the technical and competition-related determinations necessary to place a satellite on the Permitted Space Station List. However, we believe that the requirement continues to serve a useful function as applied to smaller dishes.

An example illustrates the point. Recently, the International Bureau granted Telesat Canada's request that its Anik F-1 satellite be added to the Permitted Space Station List.[15] The Bureau took this action over New Skies' objection and demonstration that the high power level at which Anik F-1 operates would effectively preclude New Skies from providing co-coverage, co-frequency services of comparable quality to U.S. customers using small receive dishes from an orbital location more than two degrees away. The Bureau concluded that the evidence submitted by New Skies was irrelevant because placing Anik F-1 on the Permitted Space Station List would authorize only routinely licensed earth stations – *i.e.,* those larger than 4.5 meters in

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[14] *See* Comments of the Satellite Industry Association, WT Docket No. 00-230, at pp. 8-9 (filed Feb. 9, 2001).

[15] *See Telesat Canada,* DA 00-2835 (Int'l Bur., rel. Dec. 19, 2000).

diameter – to communicate with the satellite.[16] To the extent the operator of an earth station with a smaller diameter wishes to communicate with Anik F-1, it would be required to demonstrate that such operations would not cause harmful interference to adjacent satellite systems, including that of New Skies. If the SIA proposal were adopted, it would eviscerate this protection and undercut the basis for the Bureau's decision.

The Commission could, however, achieve additional streamlining by allowing operators of non-U.S. licensed satellites to make a non-interference showing for operations with non-routine earth stations as part of their Permitted Space Station List application, and if granted the list would include a notation indicating the smallest size dish that may communicate with the satellite without further authorization. The Commission could also adopt a procedure such that, whenever a non-U.S. licensed satellite operator demonstrates that its operations with a particular non-routine earth station will not cause harmful interference, the list would be updated to allow other earth stations with similar characteristics to access the satellite. In this way, the Commission could maintain its ability to examine interference issues for non-routine receive-only earth stations while also streamlining the process once a positive determination has been made.

New Skies also notes that the Commission proposes to adopt a definition of the Permitted Space Station List in new Section 25.201(b)(22). The definition should be amended as indicated below to clarify that only routinely licensed earth stations are allowed to communicate with space stations on the list without further authorization, with the bracketed language suggested in case the Commission chooses to adopt the streamlining suggestion made above:

> A list of satellites including all U.S.-licensed satellites and those non-U.S.-licensed satellites for which the Commission has authorized ***all routinely licensed***

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[16] *Id.* at ¶ 15.

U.S.-licensed earth stations ***[and specified non-routine earth stations]*** to communicate with that satellite, and the satellite operator has requested the Commission to place its satellite on the Permitted Space Station List.

This amendment would ensure that there is no confusion about the scope of the authorization conferred through the Permitted Space Station List.

*** * ***

New Skies submits that the rules proposed herein will help clarify and streamline the Commission's satellite regulation, to the benefit of all operators and customers in the U.S. market.

Respectfully submitted,

NEW SKIES SATELLITES N.V.

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